



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/688,932      | 10/21/2003  | Mamoru Miyashita     | Q78105              | 3172             |

23373 7590 01/11/2007  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

|          |
|----------|
| EXAMINER |
|----------|

TRAN, NHAN T

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2622

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 01/11/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/688,932 | <b>Applicant(s)</b><br>MIYASHITA, MAMORU |  |
|                              | <b>Examiner</b><br>Nhan T. Tran      | <b>Art Unit</b><br>2622                  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsuhashi et al. (US 6,184,930 B1) in view of Nagai (US 2001/0010561 A1).

Regarding claim 1, Mitsuhashi et al. (hereafter, referred as "Mitsuhashi") discloses a digital camera (digital still camera shown in Fig. 1; col. 4, lines 34-56 and col. 5, line 29, wherein the camera operates in a digital mode by converting analog signals into signals of a digital format by A/D converter) comprising:

an image capture section (CCD 13) which captures a subject and generates a captured image (Fig. 1 and col. 5, lines 7-13);

a display section (LCD display 14) which displays the captured image (Fig. 1 and col. 5, lines 13-16);

an instruction section (shutter button 20) including an instruction switch (two-level pushbutton having a first level and a second level), which issues an image capture instruction (the button is pushed to the second level) to the image capture section when the instruction switch is in an ON state (see col. 5, lines 48-59);

a control section (control unit 15 in combination with reproduction circuit 18) which, if the ON state of the instruction section is continually detected after the image capture instruction, controls such that the captured image is displayed at the display section during the ON state (see Fig. 2; col. 5, lines 60-67; col. 6, line 58 – col. 7, line 6 and col. 7, lines 21-27, wherein **both first level and second level is an ON state of the shutter button 20** and when the shutter button 20 is maintained ON at the pushed position of the first level for a predetermined time, the camera switches to a **review mode** for displaying the captured image).

Although Mitsuhashi teaches that the camera switches to the review mode for displaying the captured image when the shutter button is maintained pushed at the first level, Mitsuhashi does not explicitly teach an input section which administers instructions relating to image display and if an instruction is issued by the input section during the ON state, the control section controls a change of size of a display object region of the captured image that is to be displayed at the display section.

However, as taught by Nagai, a digital still camera (Fig. 1) is capable of performing electronic zoom of captured image on a display device in a review mode (reproduction mode). Nagai teaches an input section (10) that comprises a zoom switch which administers instructions (zoom instructions) relating to image display for changing

Art Unit: 2622

size (i.e., zooming in or enlarging) of display object region (Figs. 2a & 2b, region A2 being selected for enlarging) of the captured image that is to be displayed at the display section if a zoom instruction is issued by the input instruction **during an ON state of the review mode** (Fig. 5, steps 34-38 and paragraphs [0048]-[0050]). Such electronic zoom function in a review mode allows the user to easily view details of a target object in an enlarge format as suggested by Nagai in paragraph [0006].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Mitsuhashi and Nagai to arrive at the applicant's claimed invention by modifying the digital camera in Mitsuhashi to include an electronic zoom input section for inputting instructions to the control section so as to change size of a display object region of the captured image that is to be displayed at the display section during the ON state of the review mode (shutter button 20 maintained ON) in view of the teaching of Nagai. As doing this would allow the user to easily view details of a target object in an enlarge format for checking image quality during reviewing the captured image.

Regarding claim 2, Mitsuhashi in view of Nagai as analyzed in claim 1 discloses the control section comprises a display control section (circuit 18 and steps S04-S10) which controls such that the captured image is displayed at the display section during the ON state (see Mitsuhashi; col. 5, lines 34-40; col. 6, line 63 – col. 7, line 6 and col. 8, lines 6-13); and a region control section (a zoom changeover switch 10 in Fig. 1 of Nagai) which, when the instruction is issued by the input section during the ON state of

Art Unit: 2622

the instruction section, controls the change of the size of the display object region of the captured image that is to be displayed at the display section (see Nagai, paragraphs [0049]-[0050] and [0041]).

Regarding claim 3, Mitsuhashi in view of Nagai as analyzed in claim 2 further discloses that the region control section comprises a position control section (indicated by arrow C1 and region A2 shown in Fig. 2a) which changes position of the display object region in accordance with the instruction from the input section (see Nagai, paragraphs [0049]-[0050] in which the user can change the position of the display object region to be zoomed by moving the arrow C1 to a desired region).

Regarding claims 4 & 5, Mitsuhashi also discloses that the control section comprises detection section (control unit 15) which detects the duration of the ON state of the shutter button (see Mitsuhashi, Fig. 2, steps S03-S06 and S04-S10 and col. 6, line 62 – col. 8, line 13).

Regarding claim 6, Mitsuhashi clearly discloses that the instruction section comprises a release switch (shutter button 20, col. 5, lines 48-67).

Regarding claim 7, Mitsuhashi discloses an image capture device (a digital camera shown in Fig. 1; col. 4, lines 30-56 and col. 5, lines 24-34) comprising:

an image capture section (CCD 13) which captures a subject and generates a captured image when an instruction (shutter button 20 is pushed to the second level) for image capture is received (Figs. 1 & 2; col. 5, lines 7-13 and col. 5, lines 48-67);

a display section (LCD display 14) which displays the captured image generated by the image capture section (col. 5, lines 13-17);

an image display instruction section (shutter button 20) which issues an instruction (the shutter button is pushed to the first level) for display of the captured image at the display section (col. 5, lines 60-67 and col. 6, line 58 – col. 7, line 6);

a control section (control unit 15 in combination with reproduction circuit 18) which, if the instruction for display (shutter button is pushed to the first level) of the captured image from the image display instruction section is detected subsequent to the instruction for image capture to the image capture section, controls such that the captured image is displayed at the display section for as long as the instruction for display is detected (see col. 5, lines 48-67; col. 6, line 58 – col. 7, line 6 and col. 7, lines 21-27, wherein when the shutter button 20 is detected at the pushed position of the first level for a predetermined time, the camera **switches to a review mode** for displaying the captured image for as long as the shutter button is maintained pushed at the first level).

Although Mitsuhashi teaches that the camera switches to the review mode for displaying the captured image when the shutter button is maintained pushed at the first level, Mitsuhashi does not teach a region change instruction section which issues an instruction for change of a display object region of the captured image at the display

section; and if the instruction for change of the display object region from the region change instruction section is issued while the instruction for display is detected, the control section controls so as to change the display object region of the captured image that is to be displayed at the display section in accordance with the instruction from the region change instruction section.

Nagai teaches a digital still camera (Fig. 1) that is capable of performing electronic zoom of captured image on a display device in a review mode (reproduction mode). Nagai teaches a region change instruction section (10) comprising an electronic zoom section which issues an instruction for change of a display object region (i.e., zooming in or enlarging) of display object region (Figs. 2a & 2b, region A2 being selected by arrow C1 for enlarging) of the captured image at the display section. As shown in Fig. 5, steps 34-38, paragraphs [0048]-[0050] in Nagai, if a zoom instruction is issued by the region change instruction section to change the display object region (A2) **during the review mode**, the display object region is changed (i.e., enlarged) on the display (Fig. 2b) under control of a control section (Fig. 1, CPU 7). Such electronic zoom function allows the user to easily view details of a target object in an enlarge format in the review mode as suggested by Nagai in paragraph [0006].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Mitsuhashi and Nagai to arrive at the applicant's claimed invention by modifying the digital camera in Mitsuhashi to include a region change instruction section (an electronic zoom section) for issuing instructions for a change (zooming in or enlarging) of a display object region of the



captured image at the display section and the control section controls to change the display object region of the captured image that is to be displayed at the display section in accordance with the instruction from the region change instruction section during the ON state of the review mode (shutter button 20 maintained ON) in view of the teaching of Nagai. As doing this would allow the user to easily view details of a target object region in an enlarge format for checking image quality during reviewing the captured image.

Regarding claim 8, Mitsuhashi discloses a detection section (control unit 15) which detects whether or not the image display instruction section is issuing the instruction (the shutter button 20 is pushed to the first level) for display of the captured image (see Mitsuhashi, col. 6, line 62 – col. 7, line 6).

Regarding claim 9, as clearly disclosed by Mitsuhashi in col. 5, lines 48-67 and col. 6, line 58 – col. 7, line 6, the image display instruction section comprises an image capture button (shutter button 20) which issues the instruction for image capture by the image capture section (the shutter button 20 is pushed to the second level) and which, after the instruction for image capture, issues the instruction for display of the captured image (the shutter button is pushed to the first level) for as long as a state of the image capture button at the time of the instruction for image capture is maintained.

Regarding claim 10, Mitsuhashi in view of Nagai as analyzed in claim 7 also discloses the control section controls so as to change *at least one of* size of the display object region (by enlarging the object region as shown in Figs. 2a & 2b of Nagai) of the captured image and position of the display object region (by moving arrow C1 to select a display object region) in accordance with the instruction from the region change instruction section (see Nagai, paragraphs [0049]-[0050]).

Regarding claim 11, Mitsuhashi in view of Nagai as analyzed in claim 7 further discloses that the region change instruction section issues an instruction for a change of the display object region of the captured image by selecting one (i.e., region A2 shown in Fig. 2a) from a plurality of pre-specified regions (i.e., regions A1 and A2) of the captured image. See Nagai, Figs. 2a & 2b and paragraphs [0049]-[0050].

Regarding claim 12, this method claim is also met by the combined teachings of Mitsuhashi and Nagai as analyzed in claim 7.

Regarding claims 13 & 14, these method claims are also met by the combined teachings of Mitsuhashi and Nagai as analyzed in claims 8 & 10, respectively.

### **Conclusion**

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fredlund et al. (US 2003/0146997 A1) discloses a digital camera having a display for displaying a captured image to allow the user to check the image by a zoom-check button.

Kowno et al. (US 7,154,544) discloses a digital camera that can perform electronic zoom on a selected area of a captured image during a review mode.

Hyodo (US 6,919,927 B1) discloses a digital camera that can perform electronic zoom on a selected area of a captured image using a zoom switch or a touch-screen.

Kaku (US 7,154,550 B1) discloses a digital camera having a shutter button as mode change switch, wherein If an operator operates the shutter button, a still image of the subject upon the operation is recorded in a compressed state to a recording medium, and if the shutter button remains pressed after completing the recording, a same still image as an image recorded is displayed on the monitor. The still image is kept displayed over a time the shutter button is being kept pressed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NT

A handwritten signature in black ink, appearing to read 'Nhan T. Tran', with a long horizontal flourish extending to the right.

NHAN T. TRAN  
Patent Examiner